



DIE VERANDERING IN ONDERWYS  
THE CHANGE IN EDUCATION



## *Capacity Calculations for High Schools*

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## Background



- In November 2017, the Sedibeng East District (SED) tried to force Hoërskool Overvaal into accepting 55 additional Grade 8 English learners.
- Overvaal is a single medium Afrikaans school and we believed that our school was operating at full capacity.
- This continued action by SED resulted in a court case which was eventually settled in the Constitutional Court.
- The basis of our court case, as well as the ruling of the Constitutional Court centred on capacity.

## Capacity definitions: What is meant when using the word “capacity”



- It is important to establish what we mean when referring to capacity:
  - The first reference is to the total capacity of a school. In other words, the physical space available for learners in the available classrooms, taking desk space and learner/teacher/curriculum space into consideration. A specific formula is used to calculate the value.
  - The formulation depends on which side of the fence the Calculator sits.

## Capacity definitions: What is meant when using the word “capacity”



The second reference is to the enrolment capacity of a school. This is the total amount of learners that a specific school can accommodate in Grade 8 for any specific year.

## Capacity definitions: What is meant when using the word “capacity”



The third reference to capacity is the actual amount of learners enrolled at a school.

## Why is capacity determination important?



- It is a tool for the effective and efficient use of resources (labour, space, time, etc.)
- It is a tool used to calculate safety risks and concerns
- It is used to calculate the enrolment capacity for a specific school
- It is a tool used to calculate the total capacity of a specific school
- The calculation can assist you if you ever should go to court
- In summary it is a management tool to be used by the SGB and school management team

## Who normally does capacity calculations?



- Capacity calculations are done by:
  - The SGB, together with the school management team (Overvaal does it as part of the admissions policy)
  - The District office or a Official from the DBE
  - Independent external parties (I would highly recommend an external party/Consultant)

## How do the different parties calculate capacity?



### ➤ The Department:

- For total capacity, DBE will take the amount of classrooms and multiply by 40. In Hoërskool Overvaal's case it is 17 classrooms x 40 learners per class = 680 learners total capacity
- For enrolment capacity, the DBE will ask the Principal how many open classrooms the school has and they will again multiply by it by 40



# How do the different parties calculate capacity?



➤ The SGB and School Management team.

- The learners' best interest have preference
- The number of educator available
- Space available for administrative needs
- The number of appropriate classroom available
- **Classroom size**
- **Curriculum and extra-curricular choices of learners (e.g. National Curriculum Statements Grade 10-12: Hospitality Studies, January 2008)**
- Space needs for sports, cultural and recreational activities

# How do the different parties calculate capacity?



- The SGB and School Management team.
  - The available space in the current media and computer centres, science and technology labs and the school hall
  - **Sanitation facilities available**
  - Parking facilities
  - Safety measures and guidelines
  - The maximum number of learners permitted per class
  - Internationally recognised best practices with regard to class size (in order to deliver effective and efficient quality education)
  - A physical calculation is then made

# How do the different parties calculate capacity?



## ➤ External Party/Consultant

- The South African Schools Act (84 of 1996)
- Occupational Health and Safety Act (85 of 1993)
- SABS 10400, F, P, and Q of the building regulations
- National minimum norms and standards for School Infrastructure
- National Building Regulations SANS 1400:210
- Risk assessment
- Facility Regulations GNR 924 of 3 August 2004
- Child Care Bylaws
- Figures supplied by School

## Capacity calculations used by Overvaal SGB



- We measured the physical classroom sizes of the 17 normal classrooms available at Overvaal
- We have 5 classrooms of 70m<sup>2</sup> each and 12 classrooms of 56m<sup>2</sup> each
- The learner capacity {LC} per class is calculated as follow
- Class size (xxm<sup>2</sup>) {CS}
- Teachers furniture (cabinets and desk) (2.00m<sup>2</sup>) {TF}
- Space for the Teacher (7m<sup>2</sup>) {ST}
- Space for the learner and his/her table (between 1.25 and 1.54m<sup>2</sup> depending on the size of the table, average of 1.4m<sup>2</sup>) {SL}
- $LC = (CS - TF - ST) / SL$   
 $= (56 - 2 - 7) / 1.4$   
 $= 33.57 / 34$  learners per class
- Where the class size is 70m<sup>2</sup>, the learners per class is 43.57/44
- $(12 \times 34) + (5 \times 44) = 630$  Total learner capacity

# The practical implications for Hoërskool Overvaal:



Grade	Gr 8	Gr 9	Gr 10	Gr 11	Gr 12	Total
2018 enrolment	142	125	130	150	110	657
Register classes	4	4	4	4	3	19

- Total capacity of Hoërskool Overvaal is 630 (as calculated by the SGB)
- Enrolment capacity for 2019, based on the 2018 values, is 110 (snap shot at the end of 2018)
- An external consultant calculated the capacity of Hoërskool Overvaal at 598
- The 25 year total learner enrolment average is 580 learners
- The 5 year total learner enrolment average is 637 learners

Grade	Gr 8	Gr 9	Gr 10	Gr 11	Gr 12	Total
2019 enrolment	162 (+52)	130 (-12)	129 (+4)	123 (-7)	135 (-15)	679 (+22)
Register classes	5	4	4	4	5	22

# Summary



- Make sure you apply Newton's 3<sup>rd</sup> law! If you are being pushed, make sure to push back (be pro-active)
- How do you achieve that position?
  - Know the facts and figures
  - If possible, have a good working relationship with the IDSO of your School. The effective functioning of Public Schools is the responsibility of Teachers, Department Officials and Parents!!
  - If a good relationship is not possible, stick to the facts. Make sure that all requests from the Department are received through an official email or letter
  - Make use of external parties that are committed to your cause, e.g.
    - FEDSAS
    - SAOU
    - External Safety Consultants e.g. X-Factor Safety Consultants
    - Hurter & Spies for legal advise
    - Afriforum (great initiative on safety in Schools)
    - Principal forums



Ons doel moet wees om kwaliteit onderrig binne 'n veilige skool en leer omgewing te lewer. Hierdie kan nie in oorvol skole met onvoldoende hulpbronne geskied nie!



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Thank you

